

Abstract of the Disclosure

Disclosed are an etching gas composition for etching silicon oxide and a method of etching silicon oxide using the same. The etching gas composition for etching silicon oxide consists essentially of a carbon fluoride gas, in which the ratio of fluorine atoms relative to carbon atoms is less than 2, and an auxiliary fluorohydrocarbon gas comprising hydrogen, fluorine and carbon atoms. Silicon oxide is etched efficiently and precisely by utilizing a plasma of the etching gas composition. The etching selectivity of an oxide layer formed of silicon oxide with respect to photoresist is thereby increased. Even when a thin photoresist layer wherein solubility into water changes by a light having DUV wavelength is applied, a contact hole having a high aspect ratio and a good profile can be manufactured using the etching compositions and methods of the present invention.